

Claims

[1] A method for automatically setting a frequency of a base station in a CDMA-2000 system, the system comprising a Block of Base station Status Management (BBSM) for managing the status of the base station, a Block of Digital unit Control and management (BDCC) for controlling and managing digital units and a Block of RF Control (BRFC) for automatically setting a RF frequency, said method comprising the steps of:
requesting RF configuration data from the BRFC to the BDCC when the base station is initialized;
requesting RF configuration data from the BDCC to the BBSM;
upon receiving the request for RF configuration data by the BBSM, reading a frequency configuration information from a PLD, which defines the frequency configuration information;
transmitting the frequency configuration information to the BRFC via the BDCC; and
setting the frequency of the base station on the basis of the frequency configuration information transmitted from the BRFC

[2] The method of Claim 1, wherein the BBSM performs the operations comprising the steps of:
checking whether an initial RF information request is generated from the BRFC; as a result of said checking, if the initial RF information request is generated, reading a RF-related PLD;
extracting a RF frequency interval value and RF frequency from the read PLD and storing them;
as a result of said checking, if the initial RF information request is not generated, identifying whether there is a request for changing a RF frequency information; as a result of said identifying, if there is the request for changing the RF frequency information, storing the RF frequency interval value and the RF frequency that an operator inputs;
obtaining a CDMA channel depending on a FA of the base station after the RF frequency is stored;
storing attenuation values of receipt (Rx) / transmission (Tx) per sectors; and transmitting the RF information obtained from the PLD to the BDCC.

[3] The method of Claim 1, wherein the BDCC performs the operations comprising

the steps of:

checking whether a RF information request signal transmitted from the BRFC is received;

as a result of said checking, if the RF information request signal transmitted from the BRFC is received, modifying the signal structure of the RF information request signal to transmit the RF information request signal to the BBSM;

transmitting the modified RF information request signal to the BBSM;

as a result of said checking, if the RF information request signal is not generated from the BRFC, determining whether a RF information response signal transmitted from the BBSM is received;

as a result of said determining, if the RF information response signal is received, modifying the signal structure of the RF information response signal to transmit the RF information response signal to the BRFC; and

transmitting the modified RF information response signal to the BRFC;

[4] The method of Claim 1, wherein the BRFC performs the operations comprising the steps of:

transmitting a RF information request message to the BDCC;

checking whether a RF information message is received from the BDCC;

as a result of said checking, if the RF information message is received, identifying a checksum of the received message;

determining whether the identified checksum is different from a value currently stored in an EEPROM;

if the identified checksum is identical to the value currently stored in the EEPROM, finishing the operations for automatically setting a frequency of a base station;

if the identified checksum is different from the value currently stored in the EEPROM, replacing the value stored in the EEPROM with the received value and storing the received value in the EEPROM;

setting the frequency of the base station correspondently to the replaced and stored value;

setting attenuation values to be used at the base station after the frequency of the base station is set; and

setting a PLL to be used in the base station.

[5] A method for automatically setting a frequency of a base station in a CDMA-2000 system, the system comprising a BBSM for managing the status of the base

station, a BDCC for controlling and managing digital units and a BRFC for automatically setting a RF frequency, said method comprising the steps of:
if an operator requests changing a RF configuration data, reading by the BBSM a frequency configuration information from a PLD that defines the frequency configuration information and transmitting the frequency configuration information to the BDCC;
transmitting the RF configuration data from the BDCC to BRFC; and
setting the frequency of the base station on the basis of the frequency configuration information received in the BRFC.